

In Patent Application Serial No. 09/944,890
Filed August 31, 2001

DECLARATION OF DARYL HLASNY

I, Daryl Hlasny, hereby declare as follows:

1. My residence address is 8712 NE 17th Street, Vancouver, WA 98664.
2. Since 1997 I have been employed by Sharp Laboratories of America, Inc., 5750 N.W. Pacific Rim Boulevard, Camas, Washington 98607. From 1993 until my transfer in 1997, I worked for Sharp Microelectronics Technology (SMT) at the same location. My current title is Principle Communications System Engineer. My responsibilities include leading a team of Engineers in the development of software, which provide advanced communication capabilities to Sharp products. I have also been responsible for representing Sharp in various industry standards groups, such as the Bluetooth PAN committee - Bluetooth SIG, UPnP QoS committee - UPnP Forum, UPnP AV committee - UPnP Forum, and the DLNA Technical Committee - DLNA NA Alliance.
3. My educational background includes a B Sc. in Electrical Engineering, 1983, from the University of Alberta.
4. Prior to making this Declaration I have read the claims of U.S. Patent Application Serial No. 09/944,890, filed August 31, 2001, for "System and Method for Establishing Bluetooth Communications", invented by Song-

Lin Young. I have also read the Office Action response accompanying my Declaration.

5. I have also reviewed the relevant portions of the Office Action dated August 9, 2005 as it relates to the Examiner's rejections of the claims under 35 USC § 103(a). In those rejections the Examiner contends: (1) that claims 1, 19, and 33-34 are unpatentable over Lee (US Publication 2002/0045424) in view of Zyren (US Patent 6,377,608). These rejections are based upon the Examiner's assertion that the cited art is seen to make the claimed subject matter obvious.

6. Section 3 of the Office Action states that Lee shows a piconet beacon broadcast by a master device at a particular frequency $f(kB)$, and that the beacon frequency includes the master device's address and clock information. The examiner then contends that the piconet beacon frequency is responsible for the establishment of a Bluetooth communication link with the master device. It is admitted that Lee does not describe a slave device monitoring the piconet beacon. However, the examiner states that Zyren describes a beacon monitoring function. The examiner says that it would have been obvious to a person of skill in the art at the time of the invention to use Zyren's monitoring function to implement the periodic tuning of a slave device receiver to "this frequency" (which I assume is $f(kB)$).

9. I disagree with the examiner's analysis of the prior art references. Further, I agree with the explanation of the cited art that is

presented in the accompanying Office Action response. The examiner contends that Lee describes a beacon signal that contains a master device address and clock information. However, in paragraphs [0060] and [0062], Lee clearly says that the beacon contains only Receiver Signal Strength Indicator (RSSI). I can find no mention in Lee's patent of any other functions being performed by the beacon, or of any other information being carried by the beacon.

Lee is not especially clear in explaining how a network link is established as a result of the RSSI measurements. In paragraphs [0013] and [0051] he describes the transmission of a "route update packet". While this process is not described in any detail, I can only assume that this packet is delivered through a preexisting communication link between a master and a slave device. In fact, I believe that the examiner is incorrect in asserting that Lee establishes communications with the network as a result of the beacon monitoring. As is well understood in the art, the slave device cannot transmit a route update packet to a gateway unless the slave device already has a communication link established with at least one master device. Generally, I believe that Lee is concerned with a handoff method to insure that a slave device is communicating with the best master device (the one with the strongest signal). In other words, Lee is not establishing a network link, but rather, changing the communication path from a slave device already connected to the network.

Zyren describes a system that works in a completely opposite manner than Lee. Zyren describes an ad hoc device that monitors unused portions of the ISM band to avoid other networks that are close by. As with Lee, the beacon described by Zyren includes no information that can be used to establish a communications link to a master device. Unlike Lee, Zyren's monitoring is for the purpose of avoiding the network associated with the monitored signal.

10. To my mind, it seems odd to combine a reference that uses a beacon to determine the closest network communication partner, with a reference that uses a beacon to avoid a network altogether. Therefore, if these references were combined, an expert in the field such as myself, might be guided down a path that suggests an improved process for avoiding nearby networks. Alternately, an improved process for selecting the optimal master station might be suggested. At the most general level, neither reference describes a means for a slave device to join a network as a result of receiving information in a beacon. Therefore, I do not see how this fundamental concept, as expressed in the Applicant's claims, could occur to expert reading these references.

I see that the Applicant has amended the claims, changing the word "beacon" to "master identity signal". It appears to me that the examiner is making the assumption that all beacon signals are somehow the same, and I presume that these amendments were made to make clear that the

Applicant's beacon (master identity) signal is different from the prior art beacon signals. I agree that the Applicant beacon (master identity signal) is not the same as the prior art beacons.

More particularly, neither reference describes a master identity signal that broadcasts master device address and clock information, so again, I do not see how an expert could derive this facet of the claims as a result of studying the Lee and Zyren references. Nothing in the prior art, including my close awareness regarding the relevant skill in the art, deflects this focused thinking into imagining the possibilities of a master device using a master identity signal, broadcast at a particular frequency, with master device clock and address information, to enable a more rapid establishment of a communication link with a monitoring slave device. In summary, I do not believe that the prior art makes claim 1 or 33 obvious, or any dependent claims (19 and 34) obvious.

11. Concerning the rejection of the remaining claims as obvious in light of the additional Haartsen (US Patents 6,519,460 and 6,754,250) references, I do not find that the subject matter of the Haartsen patents, in combination with Lee and Zyren, makes any of the Applicant's distinguishing features obvious. Haarsten '250 is apparently cited to introduce the relationship between the master device address and clock information, as is conventionally communicated with a slave device to synchronize with the frequency hopping (HP) sequence. Haartsen '460 is cited to introduce the

FHS packet mechanism. The cited portions of the Haartsen patents describe conventional subject matter that is well known in the art, and part of the Bluetooth Standard.

12. Haarsten, however, does not describe a master identity signal broadcast by a master station at the f(kB) frequency, with master device address and clock information, for use in establishing a link to a slave device. None of the references describe this subject matter. None of the references describe a methodology to shorten the link acquisition process. Therefore, I do not see how the combination of Haarsten '250, Haarsten '460, Lee, and Zyren, suggests of the above-mentioned claim features. Any claim reciting any these features cannot be considered obvious by a person of skill in the art, in light of the cited prior art references.

13. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United State Code and that such willful, false statements may jeopardize the validity of the application on any patent issuing thereon.

Date: Oct. 14 2005

Signed: 

Daryl Hlasny